Wisconsin Utilities Association

MEUW Municipal Electric Utilities of Wisconsin

To: **DOA-Division of Energy & Intergovernmental Relations**
Public Service Commission of Wisconsin

From: **Wisconsin Utilities Association, Municipal Electric Utilities of Wisconsin, Wisconsin Federation of Cooperatives**

Re: **RPS Report Comments**

Date: **November 20, 2003**

Wisconsin's power providers object to the conclusions of the recently completed report by the Department of Administration (DOA) and Public Service Commission on the Renewable Portfolio Standard (RPS) for the following reasons:

- We believe that the objective of this effort was to produce a technical report on the costs associated with an expansion of the RPS and that the DOA has exceeded its mandate by instead making policy recommendations and producing an advocacy document.
- The Union of Concerned Scientists' (UCS) spreadsheet oversimplifies the model and produces results that are not reasonable.
- The utilities have independently conducted more detailed analyses of the costs associated with increasing the RPS using the EGEAS model that the Public Service Commission requires utilities to use in other contexts. These studies produced higher cost estimates than the simple UCS spreadsheet model does.
- The UCS spreadsheet model dramatically understates transmission constraints and the costs of relieving them.
- Wind farm siting costs (in particular local resistance to the presence of wind farms) are understated in the UCS model.
- Portions of the report appear to be inconsistent. For example, a stated benefit of increasing the RPS is to "keep energy dollars in state for local economic development". However, under most scenarios, the UCS spreadsheet model concludes that out-of-state wind power is the most efficient means of meeting an increase in the RPS. Clearly, this method of complying with the RPS does not directly improve Wisconsin's economy in the manner that the report suggests.

Excerpts from previous communications:

- The UCS spreadsheet model currently addresses the transmission issues raised by the utilities by assuming the reduction of wind potential if sites are not within 20 miles of a 69 kV transmission line or distribution substation. This modeling assumption does not accurately capture the transmission issues and limitations in Wisconsin. Even if a 69 kV line is present, the transmission line may not be capable of accepting the generation into the operating system at that point.

- A further practical limitation is that while multiple sites suitable for wind development may be close to a 69 kV line, installing one wind farm at one point on the line will likely eliminate the feasibility of installing another wind farm at another point of the same line.
- Recent attempts at siting utility scale wind farms have indicated more resistance than acceptance, despite recently enacted financial incentives, i.e. 2003 WI Act 31. The recent rejection of a wind facility by the Shawano County Board of Supervisors is a recent example of this. While the landowner may be willing to lease land for the installation of turbines in return for compensation, his neighbors, township, and county may not for many reasons that include equity, aesthetics, technology concerns (whether real or unfounded) and environmental concerns.
- The report is not sufficiently balanced in the sense that it doesn't address some of the very real practical challenges/impediments to implementing some of the renewable technologies. Such challenges as overcoming public opposition to the development of wind generation or transmission needed to deliver energy from remote wind plants are not mentioned.
- The report's discussion of wind does not appear to fully appreciate the extent of the transmission constraints on imports into and within Wisconsin. To substantially increase the energy import capacity into Wisconsin, substantial improvements to the transmission interface between Wisconsin and Minnesota, as well as other regional system upgrades will be needed. Getting the approvals and public support required to construct needed transmission facilities has been very difficult.
- The discussion on transmission interconnection and upgrades continues to understate costs of new 345 kV transmission lines. This is inconsistent with the estimated $400 million, or $1.9 million per mile cost to build the proposed 210-mile Arrowhead Weston 345 kV line, 77% of which uses existing right of way.
- The discussion of wind potential in Wisconsin appears to be very general and optimistic. Based on recent experiences with the siting of wind generation in Wisconsin, it is doubtful that anywhere near 6,300 MW of onshore and 4,300 MW of offshore wind capacity could be developed in Wisconsin. Even if sufficient areas with average annual wind speeds of 14.5 mph could be found, the public is unlikely to accept the visual impact of that much wind capacity, especially along the shores of Lake Michigan and Superior. (In particular given that the technology improvements assumed for wind turbines involve higher towers and longer blades, increasing the visual impact.)

Additional comments:

- The study claims to present a cost-benefit analysis of expanding the RPS, but the benefits are never assigned a dollar value. Therefore, conclusions such as "increasing the present Renewable Portfolio Standard (RPS) [is] a reasonable objective" are value statements (policy recommendations) that are not founded on a formal cost-benefit analysis. A reader of the study cannot conclude what level of costs would make increasing the RPS an unreasonable objective.

- One of the "Key Findings" of the study states that the "study provides *unbiased* facts" and "analyzes them by an open and *unbiased* model." (Italics added.) We object to the use of the term "unbiased" in these contexts. Unresolved differences in opinion exist regarding modeling assumptions and analysis methods, such that what is presented in the report cannot be characterized as unbiased.
- Under some scenarios, the report cites cost *savings* due to an increase in the RPS. This is a flawed conclusion. The cost savings that are attributed to increasing the RPS are really due to assumptions regarding the extension of the PTC or technological improvements in renewable sources. In either case, a rational model would assume that utilities would voluntarily adopt less expensive technologies, making the RPS irrelevant in those scenarios.
- The model appears to erroneously assume that there will be no intra-state transmission congestion in 2009. It also fails to correctly account for the costs that may be incurred during times when wind energy is being produced at out-of-state wind farms, but constraints prevent delivering that energy to Wisconsin utilities. Even though non-firm transmission may be available much of the time, most contracts require the purchasers to take energy whenever it is produced. This must-take provision can add significant costs to the delivery of energy under out-of-state purchased power agreements.
- The model further assumes penalty-free imbalance markets as a result of FERC Order 2000. Under the proposed MISO Day-2 market, wind will not be subject to uninstructed deviation charges. But owners and purchasers will be subject to hourly imbalance charges. These too can be significant.

Wisconsin utilities have long been producers of renewable energy, dating to the turn of the previous century and will continue to do so through the use of hydro, biomass, anaerobic digesters, co-generation, wind, landfill gas, etc. We are not necessarily opposed to an expansion of the RPS, since current and planned renewable energy projects will continue to exceed current standards when appropriate and cost-effective. Nevertheless, increasing the RPS will result in higher electric rates. Any serious public policy discussion on doing so should include a detailed analysis using the EGEAS model that the Public Service Commission currently requires utilities to use.

Therefore, for the reasons stated above, Wisconsin's energy providers object to the conclusions of this report and caution that it is of limited value as a source of public policy development on this issue.